A QUANTITATIVE STUDY OF CONTROLLED FLEXIBLE RESPONSE AND THE UNITED STATES MILITARY

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THESIS

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CONTROLLED FLEXIBLE RESPONSE
AND THE UNITED STATES MILITARY

by

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A Quantitative Study of Controlled Flexible Response and the United States Military

by

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I. THE SCHLESINGER STRATEGY

A. THE DEBATE

In February of 1974 James R. Schlesinger, the Secretary of Defense, purposely initiated a 'serious national debate' on the viability of the United States' reliance on a nuclear deterrence strategy of Mutual Assured Destruction (MAD). (50:261) He pointed out that while Assured Destruction remains an option, revisions were being made toward the assignment of nuclear assets to military targets instead of cities. Schlesinger maintains that this shift ensures the flexibility and selectivity to respond to a broad spectrum of risks. (50:21) Clear discussion of the subject of nuclear deterrence requires a definition of terms. The definitions in the following section will be utilized throughout this paper.

B. THE LANGUAGE OF DETERRENCE

Like almost all areas of human endeavor the study of nuclear deterrence strategies is based on a language, a knowledge of which is fundamental to any understanding of the field. The explanations and definitions offered here are not necessarily sanctioned or accepted by any authoritative body other than the author himself. It is fact that certain words or phrases found in different articles or speeches have considerably different meaning dependent upon the author and context.

1. Counterforce

Counterforce does not yet appear in Webster's dictionary. Counter as a combining prefix is defined by Webster as denoting, among other things, the concept of opposition. Thus, strictly speaking, counterforce should mean opposition to force. In this case the force referred to is the strategic nuclear force of a nation.

Counterforce in strategic jargon is sometimes equated to "missile silo killing" (59:37) and is often associated with what are known as war-fighting strategies. These are strategies which envision nuclear exchanges, the purposes of which are rather limited and calculated on a failure of deterrence.

Counterforce capability is defined by J. Coffey as "The ability to destroy an enemy's strategic offensive forces through attacks on missiles and bombers before these can be launched." (8:203)

2. Countervalue

A redundant reference to Webster gives an intial definition of countervalue as something that is in opposition to value. This word definition produces a rather obtuse concept of countervalue. It is generally taken in deterrence literature to mean a strategy of attacking 'civilian' targets such as population centers or industry. (8:203)

Most experts in the field indicate that countervalue is the targeting philosophy associated with the strategy of

Mutual Assured Destruction (MAD). This is the holocaust strategy designed to destroy the social and economic fiber of a nation by destroying a major portion of the industrial capacity and killing a large percentage of the population.

3. Mutual Assured Destruction (MAD)

The above reference to countervalue as the targeting philosophy of MAD introduces the reader to this deterrence strategy which embraces the most destructive form of war ever known to man.

The basic assumption of nuclear deterrence has been that mutual self destruction is unacceptable. The first corollary of this assumption is that it is no 'nukes' or all 'nukes'. The second corollary is that destruction of one's opponent is feasible if unacceptable destruction in kind can be CERTAINLY avoided.

Corollary (1) has achieved the status of international law. Breakage of this covenant would have serious internal and international consequences (politically, economically, etc.).

Corollary (2) is the basis of the U.S. second strike philosophy. That is, as long as there are sufficient survivable forces, MAD is viable and thus deterrence is operable.

MAD says that if the enemy crosses some rather well-defined line he will be destroyed. It is clear, unequivocal, and not subject to misinterpretation. As long as the lines not to be crossed are clearly drawn MAD is not vulnerable to

probing or testing. Its effectiveness is based on the willingness of a nation to use force and the clear understanding by a potential aggressor of that willingness. (37:105)

MAD assumes that this gross destruction will be mutual. This is no war-fighting or war-winning strategy but rather a strategy of deterrence based on terror. The champions of MAD subsume that no rational process will result in nuclear war because it assures self-destruction. Clearly neither side will emerge with an 'edge' or 'victorious' or 'ahead' in any sense now known.

From the United State's point of view MAD says we will never strike first, so if the Soviet Union were to launch an all-out attack and devastate America our second strike forces could return in kind the same sort of devastation upon the Soviet Union.

4. Mutual Assured Survival

This rather new concept is less well understood but appears to be connected with the strategy of flexible response. As the words state, this is a strategy of mutual restraint where two powers engage in delicate nuclear exchanges targeted against selected high-value targets which may be strategic forces (counterforce), transportation assets, power-generating stations or other strategic assets without deliberately inflicting 'unacceptable' casualties. It is a strategy of hurt with less pain, requiring the nicest sense

of honor between nations engaged in a nuclear war. MAS assumes both sides have a high regard for human life. If we must have a destructive war, let's destroy the things men build and not the men who build them. This is a war-fighting strategy.

5. Controlled Flexible Response

Controlled Flexible Response (CFR) in today's context refers wholly to nuclear responses and thus must be carefully distinguished from the arguments of the late fifties and early sixties when it meant the flexibility to respond in some manner other than nuclear to a non-nuclear provocation. It was an argument for balanced forces including sizable conventional forces.

Controlled flexible response is a philosophy as well as a strategy. It has the breadth to encompass MAD, MAS, or any other deterrence strategy depending upon the degree of control and/or flexibility exercised. In itself then, controlled flexible response has little meaning. Only when it is coupled to the pre-conflict declarations of a nation does it take form and then only if these declarations have been conclusive enough to indicate the probable courses of action a nation would take given certain provocations.

Most generally, controlled flexible response is linked to MAS as a means of providing a limited nuclear response to a limited first strike. What is not clearly stated is if the response be equal, somewhat less, or of some

multiple of the initial limited strike. Crises decisions would be forced upon the nation attacked to determine a suitable response to some unforeseen attack in a relatively short time span. Controlled flexible response is thus a philosophy which can have ambiguities for both the aggressor and the victim.

This list of definitions is no way inclusive. Many other concepts such as the Dulles Doctrine, Trip Wires, Shield Strategy and Witholding strategies exist. These issues are not directly dealt with in this paper and are thus not included. If the reader is interested, numerous books from the bibliography are fine sources of explanation of the whole modern (post 1945) history of deterrence. One of the latest and easiest readings is George Quester's book Nuclear Diplomacy (34).

Appendix A is a tabulation of the U.S. and USSR strategic forces made by the author utilizing numerous unclassified sources and conducting some simple calculations using figures from different sources. This appendix will give the reader an appreciation for the magnitude of forces available as instruments to operationalize various deterrence strategies.

C. CONTROLLED FLEXIBLE RESPONSE (CFR)

In 1961 the first indications that strategic nuclear deterrence thought had begun to embrace the realities of a changed international power balance appeared. The U.S. was

(or was very soon to be) no longer the one predominate nuclear power. Because of the Soviet drive to parity (if not superiority) it became infeasible for the United States to maintain a strategy based on vast nuclear superiority. This situation led to the development of strategic options other than Assured Destruction which had previously sufficed as the deterrence strategy. Secretary Schlesinger said that in 1961 we ".... undertook the retargeting necessary...." to adopt aspects of damage limiting and counterforce options. (42:36)

The ratification of the ABM treaty in 1972 has removed damage limiting as a serious strategic option. What remained was the strategy of MAD with some vague counterforce options.

Secretary Schlesinger has announced ".... that the Pentagon has started to modify the philosophy that has dominated strategic thinking since the McNamara years." (63:17)

> Since we ourselves find it difficult to believe that we could actually implement the threat of assured destruction in response to a limited attack on military targets that caused relatively few civilian casualties, there can be no certainty that, in a crisis, prospective opponents would be deterred from testing our resolve. Allied concern about the credibility of this particular threat has been evident for more than a decade. In any event, the actuality of such a response would be utter folly except where our own or allied cities were attacked. (42:37)

The Secretary argues that it is our own lack of resolve which would induce an enemy to test our willingness to respond massively to a limited attack. He does not indicate the

source for his statement concerning our difficulty in implementing the threat of Assured Destruction.

Other considerations enter into Schlesinger's rationale for a Controlled Flexible Response Strategy. Deputy Secretary of Defense Clements stated that he and Secretary Schlesinger ".... consider the national policy on SALT pivots on a formula of 'equal aggregates' .... this means that we match to some extent, although not necessarily by the same means, the counterforce capabilities of their (the Soviets) SS-9, SS-18, and other new ICBMs." (52) It might be said that our deterrence strategy is somewhat dictated by Soviet advances in weaponry.

Dr. Schlesinger told the Pentagon Press Corps "I would not want the President (Nixon) or any future President of the United States, to be in a position in which the Soviets are in a unilateral position of striking U.S. military forces with a degree of effectiveness which the Soviets do not perceive we could achieve." He went on to say that strategic equality is based on ".... maintaining a posture in which no unilateral advantages in terms of strikes against military targets without the necessity of striking cities on either side would be obtained by a potential foe." (52)

The fear that a President might be in a position of having U.S. military forces attacked but not U.S. cities and not have the ability to reciprocate in kind appears to be at the heart of the Secretary's strategy. Schlesinger has argued

that in this case the President, with his only option being destruction of Soviet cities and the almost certain Soviet second strike on U.S. cities, might decide to save American lives by not retaliating, in effect acquiescing to the aggression. (61)

Schlesinger is publicly acknowledging the credibility of the Soviet second strike capability. This acknowledgement is a crucial aspect of the changed power balance of the late 60's. It was not until the late 60's that the Soviets had enough strategic assets at sea to have this Assured Destruction capability. We then entered into the field of Mutual Assured Destruction (MAD). The doctrine of sufficiency vice superiority is an expression of the acceptance of this reality by the United States.

D. TARGETING IMPLICATIONS OF CFR

Many persons argue that the development of CFR could mean the development of a U.S. capability to neutralize the Soviet's second strike capability rather than attack Soviet cities. If the Soviet second strike capability is from land based missiles, we have in fact created a first strike capability. If the Soviet second strike capability is from submarine based missiles, then the argument is bankrupt unless we go all out on Ballistic Missile Defense (BMD), something that we agreed in SALT I not to do. ASW technology is unable to adequately ensure the detection, tracking, and elimination of any significant percentage of ballistic missile submarines

at sea before they launch their missiles, now or for the foreseeable future. In any case, to pose a threat to the second strike forces of the Soviets is generally acknowledged to be inviting a preemptive attack on the basis that such a vulnerable position would be intolerable to either the U.S. or the USSR. What then are suitable counterforce targets?

Dr. Schlesinger has defined his view of counterforce targets as military targets. What are military targets? Can one target an Army, a mobile mechanized Army? The twenty minute retargeting capability envisioned for the Command Data Buffer System (CDBS) proposed to support CFR would require real time accurate location information not readily available for mobile targets, particularly in times of crises. Are the targets then airfields, shipyards, supply dumps, and transportation links? Can deterrence be built on the threatened destruction of such commodities? The viability of targeting Murmansk shipyards as a tit-for-tat target with say, Electric Boat Company in Groton, Connecticut is central to this calculus, including such factors as assets expended and the possible uncertainty created. We are left then with military targets almost surely meaning strategic nuclear forces, primarily missile silos. Senator Stuart Symington most clearly states that Secretary Schlesinger's strategy is switching some targeting from cities to missile silos and he cautions against the folly of imagining a surgical or clean (nuclear) war. (49) Unless one shoots first the problem of shooting at empty holes becomes a major consideration.

E. A SCENARIO FOR CFR

Dr. Schlesinger's basic scenario is that the Soviets believe that they have a force capable of destroying the U.S. land-based missile force and do not believe we possess a similar capability. The Soviets successfully launch a strike against these targets (while retaining enough assets to attack most major U.S. cities) and send an ultimatum that the U.S. destroy all remaining nuclear arms. (56) Due to the location of the U.S. missile assets civilian casualties from the Soviet strike are 'minimal'.

Secretary Schlesinger argues that MAD is inhumane and that the President might decide to save U.S. lives by not retaliating if he had no other option than MAD, in effect acquiescing to the Soviets. Thomas Schelling states in his book Arms And Influence that the ".... act of deterrence .... depends upon the willingness to use force if deterrence fails." (37:43) This premise might be restated to read .... upon an enemies perception of your willingness to use force. Could the current shift in U.S. strategy be read in the Kremlin as a lack of resolve to use force?

In this scenario the President could order our SLBM's to destroy Soviet cities and population knowing that the Soviets will retain enough assets to return in kind. What does he do?

Secretary Schlesinger would provide him with the option of responding by destroying the remaining Soviet nuclear forces.

This assumes that they are targetable, that is land based missiles and that we know which silos are empty.

Following this scenario, the U.S. would destroy the remaining Soviet land based missiles. What is the result? Two opposing forces, both with MAD capabilities retained, at least in their SLBM forces. By Schlesinger's accounting no gain is accrued to either side thus you have effective deterrence. Why then has the Secretary challenged the nation to a public debate on nuclear deterrence strategy?

F. THE RATIONALE FOR CFR

Secretary Schlesinger may be telling the Russians not to become carried away with their recent advances in missile technology, that there is no credible first strike scenario for either side. It may be that by raising the possibility of a U.S. first strike capability the Soviets will be encouraged to follow the foregoing scenario to a similar conclusion. It could be viewed as a device to educate the Soviets in the limitations of their soon to be realized increased strategic capabilities. That is, we have had a first strike capability for a long time now and it has not accrued us any great strategic or diplomatic advantages and the same will be true for the Soviets.

The timing of these arguments in the open press should not seem to be curious. With SALT negotiations in progress the Soviets must be impressed with the lack of impressiveness that nuclear parity provides. Senator Proxmire has

cautioned the American people not to be overly alarmed by certain of Dr. Schlesinger's arguments but to consider that much of what he says is directed to the Soviets with the psychological impact in mind. (58)

The essence of these arguments is captured in an exchange between Secretary Schlesinger and Senator Brooke. According to the Secretary, "The aim of this modification of policy is to make lower-level nuclear conflicts as well as conflicts involving large scale destruction of cities even less likely than they are now, which is near zero." (50:21)

Senator Brooke responded that ".... the pursuit of options you (Schlesinger) have outlined threatens strategic destabilization without providing any meaningful advantage in terms of deterrence." (50:21)

Whither the military in this 'national debate'? There has been almost a complete silence on the part of the military. Does this silence indicate approval or acquiescence? Chapter Two investigates reasons for being concerned with the military's position on nuclear deterrence strategy.

II. THE MILITARY AND CFR

A. ONE MILITARY ELITE'S VIEW OF CFR

The new strategy articulated by Dr. Schlesinger requires a fine sense of judgment to evaluate an attack and to reply in a manner the enemy will perceive to be non-escalative and non-capitulatory in nature. These decisions made in a crises atmosphere when time and human resolve are likely to be in short supply can be viewed as the weak link in the whole rationale of CFR.

Admiral Elmo Zumwalt, USN (ret) was asked on September 6, 1974 if he thought ".... that our government's decision making process, particularly at the civilian-military interface could support this (CFR) strategy?" Admiral Zumwalt replied that he felt the probability of success was about .00001 percent that the strategy could be supported. His view was that the U.S. would wait to see if the attack was accidental or premeditated. In the latter case our response would be massive spasmodic retaliation. By massive retaliation Admiral Zumwalt is taken to mean a full scale retaliation utilizing the majority of the U.S. strategic assets against a full range of pre-planned targets. The key here is the reliance on pre-planned targets. There is no dependence on possibly vulnerable communications links required to retarget strategic assets or upon considered agreement between civilian and military leaders as to what the targets should be.

Admiral Zumwalt, a military person who, until very recently, was a member of the Joint Chiefs of Staff thus publicly implies a lack of confidence in at least one aspect (decision making) of CFR.

There is a considerable body of opinion which holds that a national policy for survival in a world of nuclear weapons should enjoy the intellectual acceptance of the military organization charged with the responsibility of carrying the burden of operationalization of that policy. Military strategists had warned that the U.S. should not become involved in a land war on the Asian continent. (51:26) It took a Viet Nam for the civilian leadership to fully appreciate that dictum. Academic options must be militarily viable. Otherwise, if an attempt is made to exercise the option (their mere existence argues for their application) the results could be militarily disastrous.

B. OPTIONS AND ACTIONS

Graham Allison has argued that the presence or absence of ready military options may affect the decisions about the use of force.

> Capabilities created to increase governments options by generating information and alternatives that would otherwise be unavailable, creates interests in, and often lobbies for, the use of these capabilities. The creation of a capability brings with it officials commissioned to search for instances in which that capability might be appropriately used, a flow of information about such problems and their solutions, and groups with interests in the exercise of that capability. Such factors

> tend to change other government officials' awareness of, attention to, and judgments about the use of that capability. (51:24)

The existence of a capability can affect a politician's interpretations of national interests, commitments and defense policies without regard for the full millitary implications of the decisions based on those interpretations. (51:24) "The availability of a ready military option has been one major factor in U.S. decisions about the use of force ...." (51:31) President Eisenhower's decision to not intervene in Southeast Asia when the French were in danger of defeat can be traced to a distinct lack of capability at that time. (51:27)

In the case of CFR, this option is a product not of the military's invention. However, the military has not publicly resisted creation of the option, in fact the military-industrial complex may well become involved in the operationalization of CFR and develop those interests and pressures which could possibly obscure more elemental military reservations about the effectiveness of CFR.

One may well ask does the U.S. military, at this early stage, support the CFR option as a useful and necessary part of our nuclear deterrence strategy? If not, and it does become a fixture of our deterrence strategy, will there be pressures for its employment and what are the likely military results of such employment? The latter question should be answered in the context of the military position prior to

the ordered implementation of CFR and the developed adherence which will then occur. This paper is concerned only with answering the first question concerning the military's intellectual support or lack thereof for the strategy of CFR.

C. DEFINING THE MILITARY POSITION

We have previously summarized the major points of Secretary Schlesinger's strategy for nuclear deterrence, the next task is to make a determination of the values and perceptions of the U.S. military concerning nuclear deterrence strategies. The accomplishment of this task has been through the conduct of a survey of a sample of military persons.

The intent of the survey is to cover military officers who meet the following criteria:

1. Career Officers
2. Rank between O-4 and O-6 (Major/Lieutenant Commander and Colonel/Captain)
3. Likely to succeed to higher levels of command and responsibility

Criteria One is adopted to reflect the views of persons committed to a military career as opposed to those who might be serving in the military for an abbreviated period of time. Criteria Two strives to ensure that the respondents have sufficient service time to adequately reflect a mature and knowledgable military view. Criteria Three is selected in order that the survey results will reflect the values and perceptions of a segment of the military who, in the near

future will probably be in higher command and advisory positions within the military community and possibly at various civilian interface positions.

The author felt that these criteria could best be fulfilled if the survey were conducted at the Army, Navy, and Air Force War Colleges. The Navy War College at Newport, Rhode Island and the Army War College at Carlisle Barracks, Pennsylvania responded in a receptive manner and provided complete assistance in the conduct of the survey. The Air War College at Maxwell Air Force Base in Georgia asked for changes in the survey content which would have destroyed the validity of combining responses from this source with those from the other sources. Time constraints forced an abandonment of the goal of conducting the survey at the Air War College. This gap was filled through the Cooperation of the Defense Language Institute (DLI) in Monterey, California. The Air Force Officers at DLI, both staff and students, were asked to complete the survey. The three aforementioned criteria are probably met by these Air Force Officers, however they cannot be said, with the same degree of certainty, to be a population with the same selection criteria as those found at the War Colleges.

D. WHO ARE THE RESPONDENTS

Tables 2-1 through 2-5 are a gross profile of the persons responding to the survey. The majority of the respondents were from the Army War College (AWC). (See Table 2-1.) This

is attributed to the method of distribution there which differed from the Navy War College (NWC) distribution in that the survey had a cover letter which indicated the official approval of the AWC for the conduct of the survey and encouraged, but did not require response. Also, return to a senior staff member's mail box was requested. At the NWC the survey was conducted less formally and response was somewhat disappointing. An official cover letter was also utilized on the surveys distributed at DLI. The high percentage of responses there speaks to the effectiveness of this technique.

Source	Frequency	Rel. Percent	Cum. Percent
AWC	82	59.4	59.4
NWC	32	23.2	82.6
DLI	24	17.4	100.0
	138	100.0	100.0

TABLE 2-1 Respondents by Source

Rank	Frequency	Rel. Percent	Cum. Percent
O-3	10	7.2	7.2
O-4	9	6.5	13.8
O-5	73	52.9	66.7
O-6	43	31.2	97.8
Civ	3	2.2	100.0
	138	100.0	100.0

TABLE 2-2 Respondents by Rank

Service	Frequency	Rel. Percent	Cum. Percent
USMC	7	5.1	5.1
USA	82	59.4	64.5
USAF	31	22.5	87.0
USN	15	10.9	97.8
Civ	3	2.2	100.0
	138	100.0	100.0

TABLE 2-3 Respondents by Service

Warfare Specialty	Frequency	Rel. Percent	Cum. Percent
Infantry	27	19.6	20.1
Staff	37	26.8	47.8
Strategic	1	.7	48.5
Armor	2	1.4	50.0
FLD Art	20	14.5	64.9
TAC Air	31	22.5	88.1
SAC	6	4.3	92.5
SWO	7	5.1	97.8
Other	3	2.2	100.0
None	4	2.9	100.0
	138	100.0	100.0

TABLE 2-4 Respondents by Warfare Specialty

Age	Frequency	Rel. Percent	Cum. Percent
26-30	7	5.0	5.1
31-35	9	6.4	11.6
36-40	38	27.6	39.1
41-45	77	55.9	95.6
46-47	7	5.0	100.0
	138	100.0	100.0

TABLE 2-5 Respondents by Age

The rank profile (Table 2-2) results in a high degree of confidence that criteria one and two have been satisfied. The major number of respondents fell in the O-5 and O-6 rank categories. The service profile (Table 2-3) indicates the Army to be more likely to fill out a survey regardless of source, i.e., AWC or NWC. Table 2-4 is somewhat disappointing. The author had hoped for a greater representation of Surface Warfare Officers (SWO). Also, it was not anticipated that 27% of the respondents would represent staff type officers. If it is to be assumed that most operational commanders rely on their staff corps officers when making operational decisions then this figure becomes less disturbing. Table 2-5 indicates that the respondents are mostly in an age bracket where they can be considered to have many years of active service ahead of them, thus reinforcing the satisfaction of criteria three.

E. WHITHER THE MILITARY

It has been demonstrated that at least one military elite is unable to accept the tenants of CFR. Does this attitude prevail throughout the military community? The survey of individuals profiled in the previous section is intended to answer this question. It is important to fill this apparent gap in our knowledge. The dangers of options and actions expressed by Graham Allison and reservations voiced by others can better be evaluated if the military view of CFR is known.

If war is a continuation of diplomacy by other means then experts from that arm of diplomacy must be heard before the means are used unwisely.

III. VARIABLE DEFINITION AND OPERATIONALIZATION

A. THE SURVEY APPROACH

Chapter One contains the essense of a dramatic shift in the U.S. nuclear deterrence strategy. Chapter Two raises the question of whether this shift enjoys the support of the United States military community and certain questions concerning the effects of a congruency or lack thereof between civilian policy makers and the military community. Chapter Three will be concerned with variable definition and operationalization of concepts which are intended to be indicators of the military's values and perceptions concerning nuclear deterrence strategies.

The determination of these values and perceptions could be attempted in various ways. For this study a survey was chosen as a simple and direct measure of the concepts in question. The prime value of the survey technique is the confidentiality of the responses, even to the researcher and the complete anonymity of the respondents. Appendix B is the survey as it was distributed.

The survey questions were developed primarily to test the hypothesis 'the U.S. military supports the nuclear deterrence strategy of Controlled Flexible Response.'

Most questions are drawn from statements of Secretary Schlesinger on his concept of deterrence. This is an attempt to profile a broad picture of the military's concepts of strategic nuclear deterrence.

B. DATA DEFINITION

The importance of defining the military's perception of nuclear deterrence strategies has been discussed. Of equal importance is the methodology used to arrive at that definition in order that it might be said to be accurate and valid. A pitfall to be avoided is the normative approach that says what the military's strategic concepts are and then sets out to prove it so. This study is an attempt to empirically describe what is. This methodological tool can then be used to test theoretical statements (hypothesis) and in the process pave the way for the postulation of new hypotheses.

The data collected for the purpose of this study is viewed as aggregate data. Each variable is based on summed values and therefore they may be termed summation variables. The value of each variable is the sum of the 138 cases for which data was collected.

C. VARIABLE OPERATIONALIZATION

Operationalization of the hypothesis could have been as simple as to ask each respondent "Do you support the deterrence strategy of CFR?" This would presuppose the subject was familiar with the primary elements of the strategy. To more fully test the hypothesis, the concept of support or non-support of CFR was operationalized by defining five simple scenarios in pictoral form and asking questions of an individual as to his reactions to the strategies depicted. Other questions were drawn from Secretary of Defense Schlesinger's

statements and are utilized as multiple indicators. These multiple indicators serve as a check on the consistency of any one set of responses.

The dependent variable is thus a measure of the degree of support for CFR within the military community. This is the object of explanation. The null hypothesis (Ho) is, "The military does not support the CFR strategy." Twenty variables are used to explain the dependent variable. The advantages of these multiple streams of evidence are described by Gurr as ".... a decision to treat a theoretical dimension in as many theoretical ways as feasible." (17:31) This technique is sometimes referred to as 'multiple operationism'. Aggregate variables are formed from these 'multiple streams' to determine a sense of agreement or lack thereof with CFR.

D. SELECTION OF CASES

Chapter Two sketched a profile of the respondents and the reasons for surveying these persons. It is not put forth that this sampling represents the whole military community. In fact, that is not the intent at all. The cases are meant to represent the middle to upper-middle level elites of the officer corps. This is the only meaning implied throughout this study when the term 'the military' is used. What Gurr terms a "stratified random sample" (17:42) is the goal. Stratification is aimed for by the implications of the selection process by which the persons surveyed happened to

arrive at the institutions where the survey was conducted. Randomness is achieved through the whim which moves one person to respond and another to cache the survey in a circular file.

E. DEFINITION OF THE VARIABLES

The following is a list of the primary variables (those appearing on the survey) with an explanation of the concepts they are intended to operationalize. (See Figure 3-1 for scenarios.)

VAR006 - B;s reaction to A;s limited strike in Scenario I is likely to deter such a strike by A.

A YES answer to VAR006 indicates the respondent believes massive retaliation deters limited nuclear strikes.

VAR007 - Scenario I almost certainly leads to Scenario II.

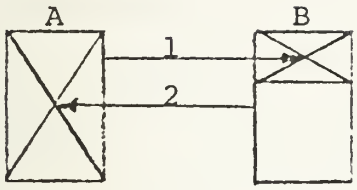
A YES response to VAR007 indicates the respondents acceptance of the limitations of massive retaliation with regards to the sanctity of his nation. He accepts the second strike capability of the enemy and their willingness to use it.

VAR008 - The exchange depicted in Scenario III will deter A from initiating such an exchange.

A positive response to VAR008 indicates the respondents acceptance of CFR as a viable deterrent strategy with regards to deterrence of limited strikes.

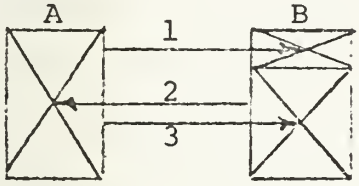
VAR009 - Scenario V is the most probable format for any future exchange as long as A and B are of comparable strength.

SCENARIO I



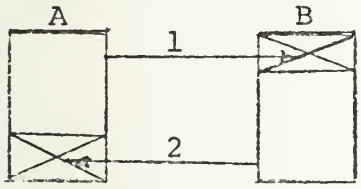
1. Limited strike by A.
2. Massive retaliation by B.

SCENARIO II



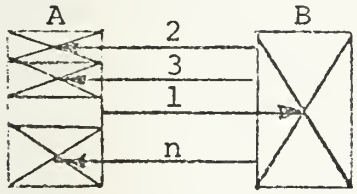
1. Limited strike by A.
2. Massive retaliation by B.
3. Massive second strike by A.

SCENARIO III



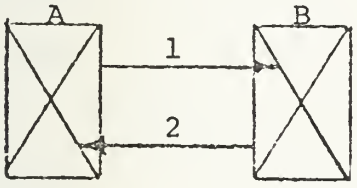
1. Limited strike by A.
2. Controlled response by B.

SCENARIO IV



1. Massive first strike by A.
2. through n. Controlled response by B.

SCENARIO V



1. Massive first strike by A.
2. Massive second strike by B.

Figure 3-1. Nuclear Exchange Scenarios

A YES answer indicates the respondents commitment to the traditional view of nuclear warfare as massive and spasmodic.

VAR010 - B's best strategy to deter a limited first strike by A is Scenario I or Scenario III.

A direct question of whether the respondent favors the massive retaliation of Scenario I or the controlled response of Scenario III to deter a limited strike scenario.

VAR011 - The deployment of a 100% effective counterforce capability against land based strategic forces by A or B would significantly alter the strategic balance.

The restriction of this question to land based strategic forces implies acceptance of the curreny day invulnerability of SLBM's (Submarine Launched Ballistic Missile). This question intends to test one aspect of congruency between the military and Dr. Schlesinger. "We would not desire to be in a position of inferiority with regard to the ability to inflict major damage on the military components of another state relative to the damage that the other state might be able to inflict on the military components we possess." (52)

VAR012 - The espousal by B of the strategy depicted in Scenario III a) increases international stability b) decreases international stability.

This question measures the respondents strength of commitment towards CFR as a viable nuclear deterrence strategy. Secretary Schlesinger and various congressmen have had a

running dialogue on this very question. (50:261) (See pages 7-19 of this paper.)

VAR013 - The aftermath of Scenario V assures its non-occurrence.

An affirmative response indicates acceptance of the MAD theory of retaliation to deter a massive first strike by an enemy.

VAR014 - The deployment of an apparently effective counterforce capability by either party forces a like deployment by the other.

The question is linked to VAR011. Schlesinger calls for U.S. and Soviet strategies forces with equal capabilities, sometimes termed sufficiency or 'equal aggregates'. A positive response indicates a view similar to that held by Secretary Schlesinger.

VAR015 - Assuming that B possesses no other reaction capability than that depicted in Scenario I and B knew for certain that the result of his reaction in Scenario I will be Scenario II his rational options to a limited strike by A include no response.

Schlesinger has postulated that a U.S. President could be put in this position. He has said that CFR is needed to give the President other options besides massive retaliation or no retaliation. (61:9) A positive response indicates agreement with the postulation of a no response option.

VAR016 - The assumed position of B in the preceeding question reduces A's perception of the nuclear threshold.

This question probes the respondents concepts of the effect of a one reaction strategy (MAD) on a prospective aggressor's perception of the nuclear threshold. In other words, would the aggressor feel more inclined to 'chip away' at the U.S. if the U.S. had only a MAD strategy of massive spasmodic retaliation for any attack?

VAR017 - Scenario III will probably result in continued probes and responses by both sides.

This question indicates the respondents feelings towards the possibility of a low level nuclear conflict being contained.

VAR018 - The response of B in Scenario V is a stronger deterrent to a massive attack by A than B's response in Scenario IV.

A positive answer indicates the respondents preference for MAD over CFR to deter a limited attack.

VAR019 - B's best strategy to deter a limited strike by A is:

a. Response in kind.
b. Response at some multiple of A's strike.
c. All out attack upon A.

A direct indicator of the respondents preferred strategy of response to a limited strike. The response (a) would be in agreement with Secretary Schlesinger's strategy.

VAR020 and VAR021 demonstrate the author's ineptness in social research. The original intent has been lost and they are not considered in the analysis of the survey.

VAR022 - The best strategy to deter a limited first strike against one's strategic forces is:

a. Instant Massive Retaliation
b. Selected Controlled Response

Another direct measure of the respondents perception of the 'best' strategy to deter a limited first strike.

VAR023 - The possession of sufficient survivable second strike forces neutralizes the effect of an enemies deployment of an effective anti-land based ICBM counter force capability and argues against the necessity to deploy a like capability.

This question is an attempt to deal with Schlesinger's philosophy of 'equal aggregates'. Must the U.S. match every Soviet capability for no other reason than to maintain 'equal aggregates' whether or not it serves our deterrent strategy? A positive response indicates a position which is not in agreement with the Secretary of Defense.

VAR024 - If the limited strike by A in Scenario II were not responded to more limited strikes would follow.

Another attempt to illuminate the respondents view of nuclear deterrence under CFR. A positive response would indicate disagreement with the philosophy ".... the President might decide to save American lives by not retaliating...." since other strikes would follow.

VAR025 - A shift in deterrence strategy form massive retaliation to controlled response increases the likelihood of a nuclear exchange.

Is CFR destabilizing as Senator Brooke and others have charged? A negative response indicates acceptance of the Schlesinger philosophy.

F. PREPARATION FOR ANALYSIS

The data collected was transferred from the survey forms onto standard eighty column coding forms. The raw data was then keypunched onto IBM punch cards. This deck of cards comprises the data base for this study.

Table 3-1 is an example of the precoded data base format. In the example respondent 001 is definitely a pro-MAD respondent. Referring to Section E of this chapter it can be seen that he answers consistently in the pro-MAD or support for Ho manner. Respondent 002 is an example of a pro-CFR respondent. Following the explanations offered in the previous chapter he can be seen to be opposing Ho and supporting CFR. Respondent 003 is somewhat ambivalent. His answers do not show the same consistency of support or non-support for Ho that respondents 001 and 002 demonstrate.

Analysis of the data was conducted through the use of a computer program known as Statistical Package For The Social Sciences (SPSS). SPSS is a relatively simple program designed to perform many useful applications in the analysis of social science data. It was developed by social scientists at Stanford University. The SPSS program is particularly applicable to the analysis of ordinal data, e.g., questionnaire responses.

CASE	VAR001	VAR002	VAR003	VAR004	VAR005	VAR006	VAR007	VAR008	VAR009
001	03	USAF	SAC	DLI	28	NO	YES	NO	YES
002	05	USN	SWO	NWC	41	YES	NO	NO	NO
003	04	USA	FLD ART	AWC	36	NO	NO	YES	YES

	VAR010	VAR011	VAR012	VAR013	VAR014	VAR015	VAR016	VAR017	VAR018
001	YES	YES	A	NO	YES	YES	NO	NO	YES
002	NO	NO	B	YES	NO	NO	YES	YES	NO
003	NO	YES	A	YES	YES	NO	NO	YES	YES

	VAR019	VAR020	VAR021	VAR022	VAR023	VAR024	VAR025
001	C	30	50	A	YES	NO	YES
002	A	70	70	B	NO	YES	NO
003	B	50	50	A	NO	NO	YES

TABLE 3-1

Example of Precoded Data Base Format

The raw responses were coded in an alpha-numeric manner. For the purposes of data reduction and analysis it was necessary to recode the data into wholly numeric terms. This step caused the researcher great pains and considerable hours were spent in the computer center smoothing the data into a form the computer would handle cleanly.

G. DEFINITION OF AGGREGATE VARIABLES

Five aggregate variables were created from the twenty primary variables. One variable (VAR654) was created in a strict empirical manner. VAR654 (con CFR) is an attempt to measure the military's acceptance or rejection of the strategy of Controlled Flexible Response.

A search for significant correlations was conducted using the criteria of .05 significance for bivariate relationships under the CROSSTABS routine of SPSS and .001 for significance of Spearman Correlations obtained from the NON-PARAMETRIC correlation routine. The screening process is graphically represented in Figure 3-1.

The variables screened were aggregated to form VAR654. High scores indicate a rejection of the CFR strategy. VAR654 is a composite variable created from the aggregation of the following primary variables:

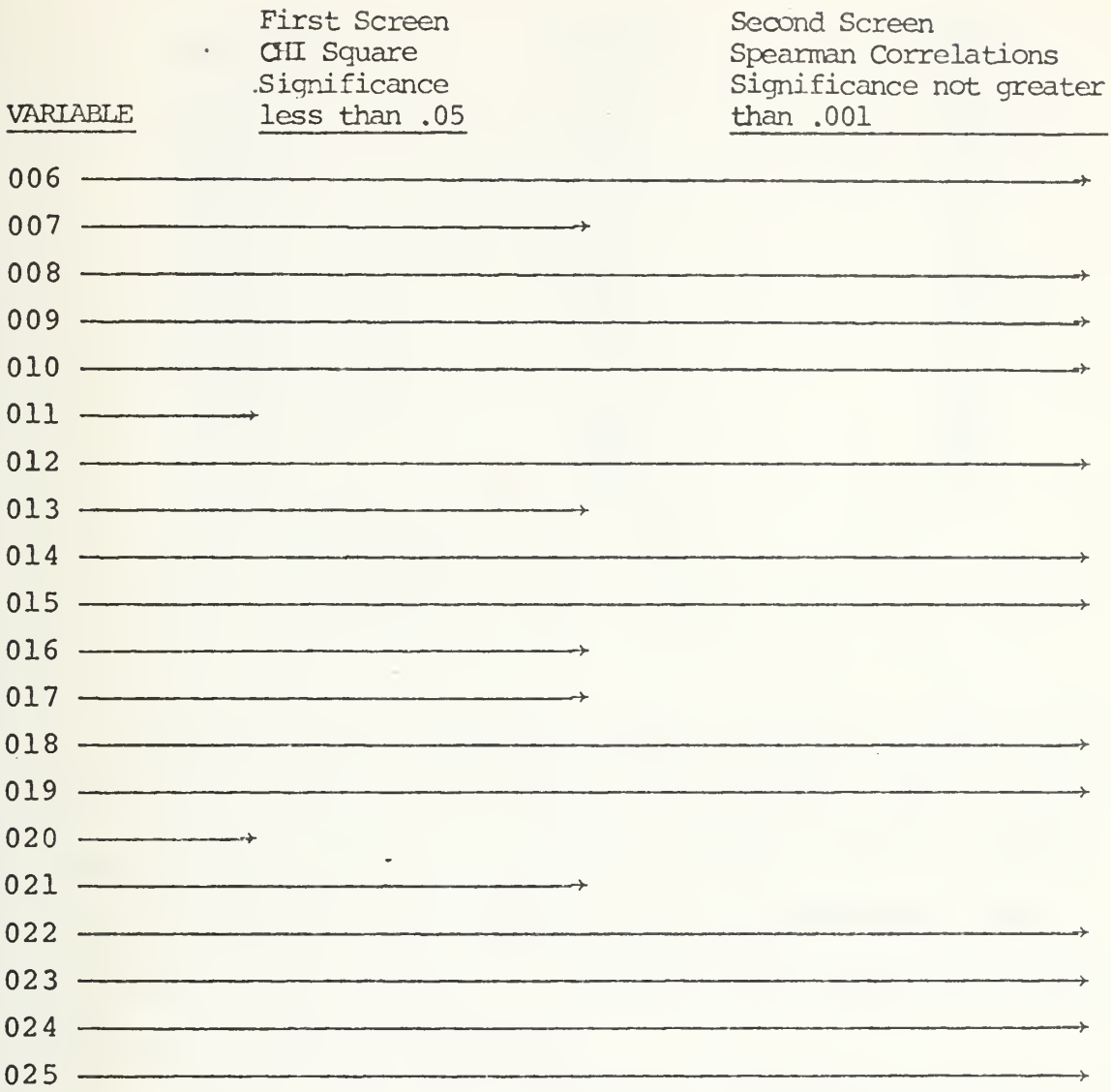


Figure 3-1. Summary of the Inductive Screening of the primary variables

VARIABLE	SCORE 2	SCORE 1
VAR006	YES	NO
VAR008	NO	YES
VAR009	YES	NO
VAR010	I	III
VAR012	B	A
VAR014	NO	YES
VAR015	NO	YES
VAR018	YES	NO
VAR019	C	A,B
VAR022	A	B
VAR023	YES	NO
VAR024	YES	NO
VAR025	YES	NO

Maximum Possible Score - 26

Minimum Possible Score - 13

The other four variables (VAR111, VAR222, VAR333, and VAR444) are aggregates based on an intuitive sense of the purpose of the primary variables (VAR006 through VAR025). Primary variables were deductively grouped where they indicated an acceptance or rejection of a common principle inherent in the CFR strategy.

The common principles for these aggregate variables are:

VAR111 (PRO MAD) - A high score indicates an acceptance of MAD as a preferable deterrence strategy over CFR. VAR111 is an aggregate of:

VARIABLE	SCORE 2	SCORE 1
VAR006	YES	NO
VAR008	NO	YES
VAR010	I	III
VAR012	B	A
VAR013	YES	NO
VAR018	YES	NO
VAR019	C	A,B
VAR022	A	B
VAR025	YES	NO

Maximum Possible Score - 18

Minimum Possible Score - 9

VAR222 (CFR DESTAB) - A high score indicates a sense of agreement with the notion that CFR is somehow destabilizing or induces a lowering of the tolerance to use nuclear weapons. CFR is conducive to making nuclear war more likely. VAR222 is an aggregation of:

VARIABLE	SCORE 2	SCORE 1
VAR012	B	A
VAR017	YES	NO
VAR025	YES	NO

Maximum Possible Score - 6

Minimum Possible Score - 3

VAR333(EQUAL AGGS) - VAR333 is an attempt to measure the amount of agreement within the military for the philosophy of 'equal aggregates.' Should the U.S. match the USSR in all capabilities or should we define our own needs and maximize those. A high score indicates acceptance of the concept of 'equal aggregates.' VAR333 is an aggregate of:

VARIABLE	SCORE 2	SCORE 1
VAR111	YES	NO
VAR014	YES	NO
VAR023	NO	YES

Maximum Score Possible - 6

Minimum Score Possible - 3

VAR444(PRO CFR) - Measures a general sense of agreement or disagreement with the various philosophies of Secretary Schlesinger which make up his strategy of Controlled Flexible Response. A high score indicates a sense of congruency between the respondent and Dr. Schlesinger. VAR444 is an aggregate of:

VARIABLE	SCORE 1	SCORE 2
VAR006	NO	YES
VAR008	YES	NO
VAR010	III	I
VAR011	YES	NO
VAR012	YES	NO
VAR014	YES	NO
VAR015	YES	NO
VAR017	NO	YES
VAR018	NO	YES
VAR019	A	B OR C
VAR022	B	A
VAR023	NO	YES
VAR024	NO	YES
VAR025	NO	YES

Maximum Score Possible - 28

Minimum Score Possible - 14

The data results presented in the following chapter are built upon an examination of the responses to the twenty primary variables (VAR006 through VAR025), the empirical aggregate variable (VAR654), and the intuitive aggregate variables (VAR111, VAR222, VAR333, and VAR444).

IV. DATA TABULATION AND PRESENTATION

A. METHODOLOGY

The purpose of this chapter is to present the data results for the eventual purpose of determining if the aggregate variables support or deny the null hypothesis. Figure 4-1 indicates the reduction of the primary variables through two methodologies, one inductive, the other deductive. The aggregate variables thus created can then be analyzed to determine their support of the null hypothesis. The ideal resultant would be to have all five of the aggregate variables point in the same direction, either support or non-support multiple streams of evidence would be thus available which would fortify any conclusions which would be drawn from this study.

The aggregate variables will be described in terms of gross frequency of responses and by cross-tabulation with five variables descriptive of the respondents. These five categories are:

1. Rank
2. Service
3. Warfare Specialty
4. Source (AWC, NWC, DLI)
5. Age

Table 4-1 is a gross representation of the distribution characteristics of the responses to the primary variables. The reader may find it convenient to refer to Table 4-1 when examining the characteristics of the various aggregate variables.

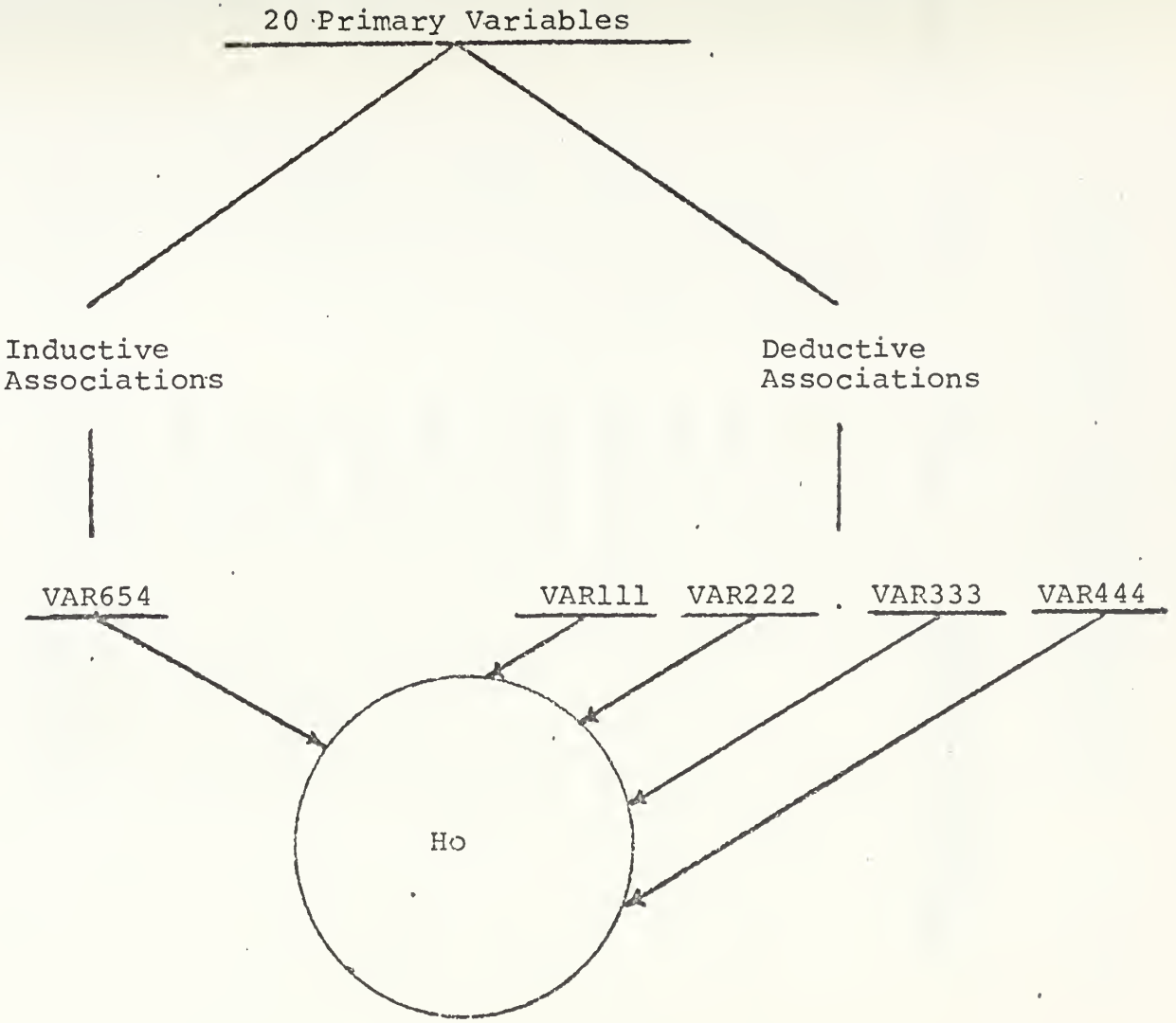


Figure 4-1. Schematic of Data Analysis Methodology

TABLE 4-1

Distribution Characteristics of
Responses to Primary Variables

VARIABLE	YES SCORE 2	NO SCORE 1	NUMBER OF CASES WITH MISSING VALUES	MEAN
006	118(85.5)	20(14.5)		1.855
007	114(82.6)	24(17.4)		1.826
008	32(23.2)	105(76.1)		1.234
009	81(58.7)	57(41.8)		1.587
010	I-116(84.1)	III20(14.5)*	2	1.853
011	104(75.4)	32(23.2)	2	1.765
012	A-63(45.7)	B-72(52.2)*	3	1.467
013	50(36.2)	87(63.0)	1	1.365
014	116(84.1)	22(15.9)		1.841
015	88(63.8)	47(34.1)	3	1.652
016	82(59.4)	48(34.8)	8	1.631
017	102(73.9)	31(22.5)	5	1.767
018	123(89.1)	13(9.4)	2	1.904
019	A-17(12.3)	B-36(26.1) C-82(59.4)	3	1.519
020				.25
021				.50
022	97(70.3)	37(26.8)	4	1.725
023	58(42.0)	74(53.6)	6	1.439
024	97(70.3)	33(23.9)	8	1.746
025	100(72.5)	35(25.4)	3	1.741

*Score: VAR011 I=1, III=2, VAR012 A=1, B=2, VAR019 A=1,B=2,C=3

TABLE 4-2. Aggregate Variables: Sense, Range, and Cutoff Values

VARIABLE	SENSE (SUPPORT Ho)	MAXIMUM POSSIBLE RANGE	ACTUAL RANGE	CUTOFF
VAR111	HIGH SCORE	9-18	10-18	14-18
VAR222	HIGH SCORE	3-6	3-6	5-6
VAR333	LOW SCORE	3-6	3-6	3-4
VAR444	LOW SCORE	14-28	14-23	14-20
VAR654	HIGH SCORE	13-26	15-25	20-25

Table 4-2 indicates the 'sense' of the aggregate variables and the cutoff values utilized. The term 'sense' refers to the significance placed on a low or high value. (Example: VAR654, high score indicates support for Ho.)

Cutoff values were determined by dividing the maximum possible response scale at the midpoint. The values in Tables 4-8 through 4-10 represents those respondents whose aggregate score falls at the end of the scale which indicates support for Ho.

Tables 4-3 through 4-7 summarize the frequency distribution of the aggregate variables. Inspection of these tables reveals the uneven distribution of responses over the actual range of values of the aggregate variables. With the exception of VAR333 the aggregate scores are skewed in the direction which indicates a sense of disagreement with the strategy of CFR or support for the null hypothesis.

TABLE 4-3. Frequency Distribution of VAR654 (CON CFR) Scores. High Score Indicates Support For Ho.

SCORE	ABSOLUTE FREQUENCY	RELATIVE FREQUENCY	CUMULATIVE FREQUENCY
13	0	0.0	0.0
14	0	0.0	0.0
15	2	1.7	1.7
16	2	1.7	3.3
17	8	6.6	9.9
18	5	4.1	14.0
19	15	12.4	26.4
20	14	11.6	38.0
21	16	13.2	51.2
22	13	10.7	62.0
23	19	15.7	77.7
24	18	14.9	92.6
25	9	7.4	100.0
26	0	0.0	100.0
TOTAL	121	100.0	100.0

Table 4-3 responses are skewed towards the higher scores. 73.6 percent of the 121 respondents aggregated to form VAR654 scored twenty or higher. Less than ten percent of the respondents scored 13 to 17. Likewise, no respondent scored a perfect 26.

TABLE 4-4. Frequency Distribution of VAR111 (PRO MAD) Scores. High Score Indicates Support For Ho.

SCORE	ABSOLUTE FREQUENCY	RELATIVE FREQUENCY	CUMULATIVE FREQUENCY
10	2	1.8	1.8
11	2	1.8	3.6
12	5	4.5	8.0
13	6	5.4	13.4
14	9	8.0	21.4
15	18	16.1	37.5
16	26	23.2	60.7
17	31	27.7	88.4
18	13	11.6	100.0
TOTAL	112	100.0	100.0

Table 4-4 indicates that 86.6 percent of the 112 respondents scored 14 or higher on a possible response scale of 10 to 18.

TABLE 4-5. Frequency Distribution of VAR222 (CFR DESTAB) Scores. High Score Indicates Support For Ho.

SCORE	ABSOLUTE FREQUENCY	RELATIVE FREQUENCY	CUMULATIVE FREQUENCY
3	8	6.2	6.2
4	27	20.9	27.1
5	44	34.1	61.2
6	50	38.8	100.0
TOTAL	129	100.0	100.0

Table 4-5 represents the pattern of the 129 respondents whose responses were aggregated to form VAR222 (CFR DESTAB). 72.9 percent scored 5 or 6 indicating support for Ho. Only 6.2 percent of the respondents scored 3, indicating that they think CFR is a stabilizing option.

TABLE 4-6. Frequency Distribution of VAR333 (EQUAL AGGS) Scores. Low Score Indicates Support For Ho.

SCORE	ABSOLUTE FREQUENCY	RELATIVE FREQUENCY	CUMULATIVE FREQUENCY
3	6	4.6	4.6
4	22	16.8	21.4
5	47	35.9	57.3
6	56	42.7	100.0
TOTAL	131	100.0	100.0

Table 4-6 describes the response pattern of the 131 respondents whose responses were aggregated to form VAR333 (EQUAL AGGS). 21.4 percent of the respondents scored 3 or 4 indicating support for Ho. 42.7 percent of the respondents scored the maximum of 6, indicating non-support of Ho.

TABLE 4-7. Frequency Distribution of VAR444 (PRO CFR) Scores. Low Scores Indicate Support For Ho.

SCORE	ABSOLUTE FREQUENCY	RELATIVE FREQUENCY	CUMULATIVE FREQUENCY
14	2	1.7	1.7
15	13	11.0	12.7
16	21	17.8	30.5
17	28	23.8	54.2
18	20	16.9	71.2
19	12	10.2	81.4
20	10	8.5	89.8
21	5	4.2	94.1
22	5	4.2	98.3
23	2	1.7	100.0
24	0	0.0	100.0
25	0	0.0	100.0
26	0	0.0	100.0
27	0	0.0	100.0
28	0	0.0	100.0
TOTAL	118	100.0	100.0

Table 4-7 describes the response pattern of the 118 respondents whose responses have been aggregated to form VAR444 (PRO CFR). A high score is a PRO CFR score. A low score supports Ho. 89.8 percent of the respondents scored 20 or less. No respondents scored in the 24 to 28 range.

Tables 4-8 through 4-10 summarizes the aggregate variable response cross-tabulation with the five descriptive variables for those respondents in the previously described cutoff range. The skewness noted in the discussions of Tables 4-3 through 4-7 is mirrored across the range of respondent descriptives.

The first two columns of Table 4-8 (VAR111) will be explained. The other variables through Table 4-10 follow the same format. Column one of Table 4-8 under VAR111 is labeled CUTOFF/TOTAL. This represents the number of respondents in each category whose response fell in the cutoff range over the total number of respondents in that category included in the makeup of VAR111. 7/8 indicates that 7 LT/CPT rank respondents were in the cutoff range and that there were 8 LT/CPT respondents included in the makeup of VAR111. 7/8 is then expressed in percentage form, 87.5. The totals at the bottom of the columns are 88/112 and 78.6. 88/112 means that 88 respondents were in the cutoff range out of a total of 112 respondents whose responses makeup VAR111. This ratio is then expressed as a percentage, 78.6. A logical question at this point concerns the validity of these results.

B. VALIDITY CONSIDERATIONS

Validity is the most important criterion to be met in quantitative research. The value of the research is dependent upon the correspondence of the indicators to the existential situation under investigation.

TABLE 4-8

Profile summary of crosstabulation of aggregate variables by respondent descriptives Rank and Service

	VAR111		VAR222		VAR333		VAR444		VAR654	
RANK	cutoff/ total	%	cutoff/ total	%	cutoff/ total	%	cutoff/ total	%	cutoff/ total	%
LT/CPT	7/8	87.5	7/10	70.0	1/10	10.0	10/10	100.0	7/10	70.0
LCDR/MAJ	7/8	87.5	6/9	66.7	2/9	22.2	8/9	88.8	7/9	77.8
CDR/LTCOL	49/56	87.5	49/69	71.1	17/69	24.7	53/60	88.3	43/61	70.5
CAPT/COL	33/38	86.8	30/38	78.9	8/40	20.0	33/36	91.7	31/38	81.6
CIV	1/2	50.0	2/3	66.7	0/3	00.0	2/3	66.7	1/3	33.3
TOTALS	97/112	86.6	94/129	72.9	28/131	21.4	106/118	89.8	89/121	73.5
SERVICE										
USMC	6/7	85.7	3/7	71.5	2/7	28.6	7/7	100.0	5/7	71.4
USA	60/66	90.9	60/75	80.6	15/77	19.5	61/68	89.7	55/69	79.7
USAF	21/26	80.8	21/30	76.7	7/30	23.4	26/28	92.9	20/28	71.4
USN	9/11	81.8	8/14	71.4	4/14	28.6	10/12	83.3	7/13	53.8
CIV	1/2	50.0	2/3	66.7	0/3	00.0	2/3	66.7	1/3	33.3
TOTALS	97/112	86.6	94/129	72.9	28/131	21.4	106/118	89.8	88/121	72.7

TABLE 4-9

Profile summary of crosstabulation of aggregate variables by respondent descriptive Warfare Specialty

WARFARE SPECIALTY	VAR111		VAR222		VAR333		VAR444		VAR654	
	cutoff/ total	%	cutoff/ total	%	cutoff/ total	%	cutoff/ total	%	cutoff/ total	%
INFANTRY	19/21	90.4	18/24	75.0	4/24	16.6	17/20	85.0	17/20	85.0
STAFF	28/31	90.3	28/36	77.7	6/36	16.7	30/34	88.2	26/34	76.5
ARMOR	1/1	100.0	1/2	50.0	0/1	00.0	1/1	100.0	1/1	100.0
FLD ART	15/16	93.7	12/18	66.7	6/20	30.0	17/18	94.4	16/20	80.0
TAC AIR	22/26	84.6	21/29	72.4	8/30	26.7	26/28	92.9	19/28	67.9
SAC	3/5	60.0	5/6	83.3	1/6	16.7	4/5	80.0	3/5	60.0
SWO	5/7	71.4	4/7	57.1	2/6	33.3	5/5	100.0	3/6	50.0
OTHER	2/2	100.0	3/3	100.0	1/4	25.0	3/3	100.0	2/3	67.7
TOTALS	95/109	87.2	92/125	73.6	28/127	22.1	103/114	90.4	87/117	74.4

TABLE 4-10

Profile summary of crosstabulation of aggregate variables by respondent descriptives Source and Age

	VAR111		VAR222		VAR333		VAR444		VAR654	
SOURCE	Cutoff/ total	%	Cutoff/ total	%	Cutoff/ total	%	Cutoff/ total	%	Cutoff/ total	%
AWC	59/65	90.8	60/74	81.1	17/77	22.0	60/67	89.6	55/69	79.7
NWC	20/26	76.9	17/31	54.8	8/31	25.8	25/28	89.3	17/29	58.6
DLI	18/21	85.7	17/24	70.8	3/23	13.0	21/23	91.3	17/23	73.9
TOTALS	97/112	86.6	94/129	72.9	28/131	21.4	106/118	89.8	89/121	73.6
AGE										
26-34	10/11	90.9	8/13	61.5	1/13	7.7	13/13	100.0	9/13	69.2
35-39	20/21	95.2	20/28	71.4	7/24	29.2	18/21	85.7	16/22	69.6
40-44	56/65	86.1	54/67	80.6	17/77	22.1	62/69	89.9	54/71	76.1
45-47	11/15	73.3	12/16	75.0	3/17	17.6	12/15	80.0	9/15	60.0
TOTALS	98/112	87.5	94/124	75.8	28/131	21.4	105/118	89.0	88/121	72.7

The validity of the twenty primary variables is theoretical. The face validity of these variables is based on the explanation of the purpose of each variable, substantiated in many cases by direct quotes from the public statements of Secretary of Defense James Schlesinger, discussed in the previous chapter. It should be recognized that these primary variables are intended to be indicators of the dependent variable. The dependent variable is an estimation of the military's support or lack of support for the strategy of CFR.

The case for the face validity of the primary variables rests to a large degree upon substantiating that they are derived directly from the public statements of the Secretary of Defense concerning key aspects of his CFR strategy.

Empirical validity is enhanced by close attention to application of proven statistical methods. Adherence to the analysis techniques explained by Gurr (17) and Babbie (1), kept the author from committing gross empirical errors which could cloud the validity of the results.

The empirical validity of VAR654 (CON CFR) is borne out by the screening process (Figure 3-2) used to select the primary components of the aggregate variables. These primary components of VAR654 are more strongly correlated with one another than with any others. The web of inter-relationships is emphasized by Table 4-11. This table represents all the correlations of the primary variables selected to form VAR654 which met the stringent requirements of significance for

TABLE 4-11

Multivariate correlations of primary variables forming VAR654

	006	008	009	010	012	014	015	018	019	022	023	024	025
006		X			X								
008	X			X					X				
009							X		X	X		X	
010		X							X	X			X
012	X						X		X	X			X
014											X		
015			X		X				X			X	
018										X			
019		X	X	X	X		X			X			X
022			X	X	X			X	X			X	X
023						X							
024							X			X			
025		X		X	X			X		X			

inclusion in VAR654. Only VAR014 and VAR023 stand out as not being integrated into this web of inter-relationships. VAR018 has but one link, however that link is with VAR022 which is thickly woven into the web.

TABLE 4-12. Comparison of Primary Variables Selected Inductively and Deductively For AGGREGATION.

PRIMARY VARIABLE	DEDUCTIVE AGGREGATIONS				INDUCTIVE AGGREGATION
	VAR111	VAR222	VAR333	VAR444	VAR654
	(PRO MAD)	(CFR DESTAB)	(EQ AGGS)	(PRO CFR)	(CON CFR)
006	X			X	X
007					
008	X			X	X
009					X
010	X			X	X
011			X	X	
012	X	X		X	X
013	X				
014				X	X
015			X	X	X
016					
017		X		X	
018	X			X	X
019	X			X	X
020					
021					
022	X			X	X
023			X	X	X
024				X	X
025	X	X		X	X

Table 4-12 emphasizes the relationship between variables selected inductively and deductively for aggregation. Variables 007, 016, 020 and 021 were chosen by neither process for inclusion. Only VAR009 was chosen inductively and not utilized in any of the deductive aggregations. VAR013 and VAR017 were chosen for deductive but not inductive aggregations.

The strong cross bonds of correlation between the various primary variables inductively selected to form VAR654 and the selection of all but one of these variables (VAR009) for inclusion in one or more of the deductively formed aggregate variables enforces the validity of the aggregate variables in fact representing that which the researcher asserts they represent.

C. RELIABILITY CONSIDERATIONS

One major criterion of reliability is replicability. This survey is easily duplicated. Use of a standardized computer program (SPSS) and the application of its statistical tools would present no serious problems to someone attempting to replicate this project.

Verification of the results could be accomplished by various means. The null hypothesis could be tested through interviews, the use of the delphi technique or through imaginative definition and selection of other indicators.

Comparibility would be valid if the sampling technique was shown to reflect essentially the same community as that striven for in this survey.

The reliability of the survey results could be verified and/or improved through increase of the sample size. Once again though, the sampling techniques must tap the same community in order to ensure validity.

Replication utilizing a greater sample size is viewed by the author as the most valid means of verification of the reliability of the results of this survey. The primary appeal of the survey technique is that anonymity is assured. Other techniques could hold lesser assurances of anonymity and induce some coloring of the results.

V. ANALYSIS AND CONCLUSIONS

A. ANALYSIS OF THE INDUCTIVE APPROACH

The inductive process of reducing the primary variables resulted in the creation of VAR654 (CON CFR) as an indicator of the respondents support for the null hypothesis. Table 4-3 demonstrates the concentration of responses towards the end of the scale indicating support for Ho. 73.5 percent of the respondents scored 20 or higher on a scale of 13 to 26.

In an overall sense the inductive variable indicates the military does not support the nuclear deterrence strategy of Controlled Flexible Response. VAR654 says that the military does support the null hypothesis. Is this conclusion valid over the full range of respondent descriptives? Tables 4-8, 4-9 and 4-10 profile the crosstabulation of VAR654 with the five descriptive categories.

The crosstabulation of VAR654 with respondents rank (Table 4-8) results in a relatively even distribution ranging from 70.0 percent for LT/CPT to 81.6 percent for CAPT/COL. The service by VAR654 crosstabulation profile (Table 4-8) shows the Army, Air Force, and Marines scoring 70 percent or more in the cutoff range. Navy respondents in the cutoff range were down to 53.8 percent of those Navy persons responding to the survey.

Crosstabulation of the respondents Warfare Specialty (Table 4-9) revealed that the strongest support for Ho comes from those warfare specialties which are predominantly Army. Infantry, Armor, and Field Artillery scored 80 percent or more. Warfare Specialties containing most of the Navy and Air Force respondents, Tactical Air, Strategic Air Command, and Surface Warfare Officers, all scored less than 70 percent.

Breaking down the respondents by source (Table 4-10) the Navy War College (NWC) respondents scored 58.6 percent. Defense Language Institute (DLI) and Army War College (AWC) respondents both scored over 70 percent.

The age crosstabulation (Table 4-10) shows three categories, 26-34, 35-39, and 45-47 all below 70 percent. However, the 40-44 category had a large majority of the respondents and scored 76.1 percent. This pulled the average up to 72.1 percent.

The inductive reduction of the survey results in a rather strong sense of support for the null hypothesis, i.e., the military does not support CFR. This conclusion is rather uniformly distributed over the five respondent descriptives. Some areas of weak deviation from the norm are respondents who are:

1. Navy
2. SWO, TAC AIR, or SAC Warfare Specialties
3. Surveyed at the Navy War College
4. Younger than 40 or older than 44

B. ANALYSIS OF THE DEDUCTIVE APPROACH

1. VAR111

VAR111 (PRO MAD) is a deductive grouping of nine primary variables which the author reasons indicate a preference for Assured Destruction over Controlled Flexible Response for a nuclear deterrence strategy.

VAR111 has a possible response scale of 9 to 18. 86.6 percent of the respondents scored in the upper half of the range which indicates support for MAD. 78.6 percent scored 15 or higher (Table 4-4). Support for MAD is regarded as supporting the null hypothesis.

The crosstabulation of respondent descriptives with VAR111 uniformly supports the conclusion that the military prefers a massive retaliation strategy. All respondent categories scored 80 percent or higher except:

1. SAC
2. SWO
3. NWC
4. 45-47

2. VAR222

VAR222 (CFR DESTAB) is a deductive aggregation of three primary variables which intends to indicate agreement with the criticism of CFR which says that CFR is somehow destabilizing or induces a lowering of the tolerance to use nuclear weapons, sometimes referred to as the nuclear threshold. A high score indicates agreement with the criticism

and is another support for Ho. The scale of response ranges from 3 to 6. 72.9 percent of the respondents scored 5 or 6 (Table 4-5). The respondents therefore support the criticism that CFR is destabilizing and lowers the nuclear threshold.

All categories of respondent descriptives scored 70 percent or higher except:

1. LCDR/MAJ
2. Armor
3. SWO
4. 26-34

The conclusion is thus well supported across the whole range of respondent descriptives.

3. VAR333

VAR333 (EQUAL AGGS) is a deductive aggregation of three primary variables which indicates the military's support for the philosophy of 'equal aggregates'. The scale of responses ranges from 3 to 6 with higher scores indicating acceptance of the 'equal aggregates' concept. Acceptance of this concept, a basic tenant of Secretary Schlesinger's deterrence philosophy, is taken as non-support for Ho. Therefore, scores of 3 and 4 are tabulated in Tables 4-8 through 4-10 as support for Ho. Overall 21.4 percent of the respondents scored 3 or 4 (Table 4-6).

Crosstabulation of VAR333 by the respondent descriptives shows all categories scoring below 30 percent except the Warfare Specialties of Field Artillery and Surface Warfare

Officer. Support for Ho, as indicated by VAR333 is thus very low among the respondents.

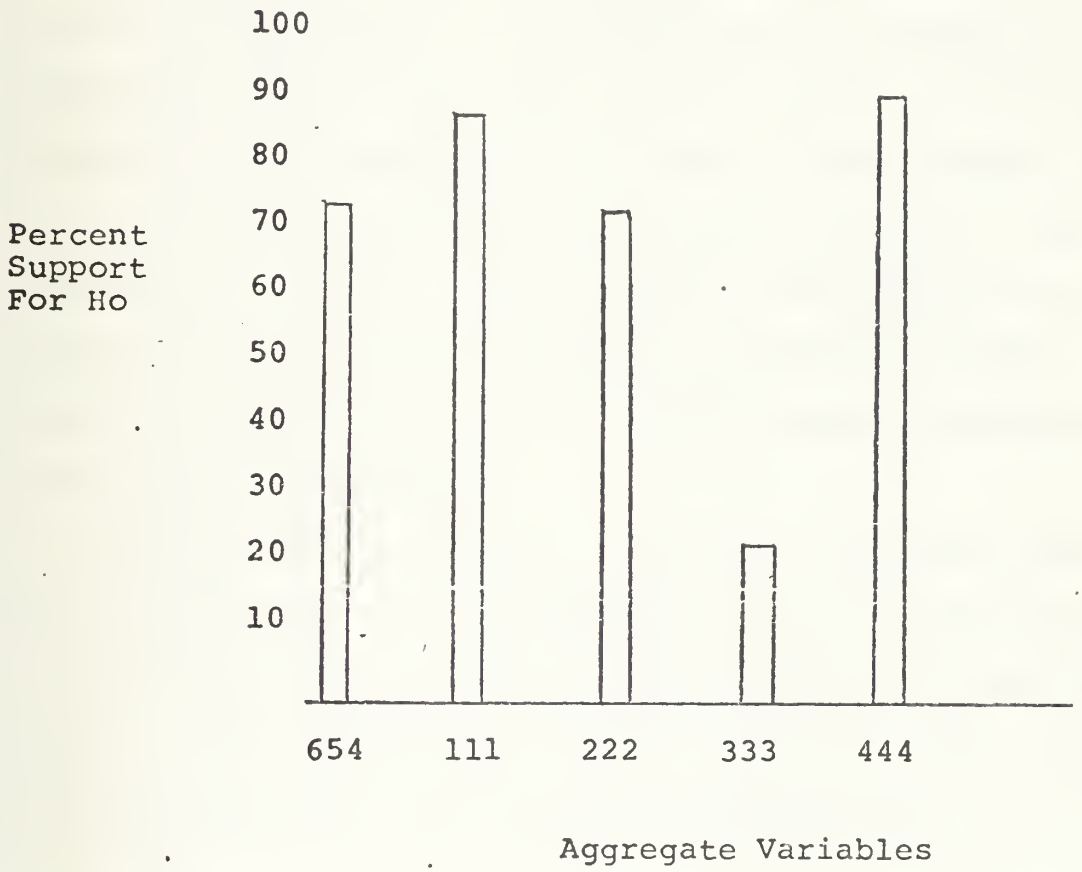
4. VAR444

VAR444 (PRO CFR) is an aggregation of 14 primary variables which seeks to indicate the amount of agreement the respondents have with a wide range of aspects of the deterrence strategy of Controlled Flexible Response as it has been espoused by Secretary of Defense Schlesinger. VAR444 is a deductive attempt at forming a general pro or con CFR indicator. VAR654 is an inductive mirror of VAR444. Table 4-12 shows that both VAR654 and VAR444 are created from essentially the same primary variables with only three differences. VAR444 has a response scale of from 14 to 28 with low scores indicating support of Ho (i.e., high score supports CFR). 89.9 percent of the respondents scored 20 or less (Table 4-9). VAR444 thus solidly indicates support for Ho.

The crosstabulation of VAR444 with the respondent descriptives uniformly supports the conclusion that VAR444 supports Ho over the range of respondent descriptives. No category of respondents scored less than 80 percent in the VAR444 cutoff range.

C. SUMMARY OF ANALYSIS

FIGURE 5-1. Aggregate Variable Support For Ho.



The null hypothesis, that the military does not support the nuclear deterrence strategy of CFR, is supported by four of the five aggregate variables. Figure 5-1 summarizes the percent of respondents scoring in the cutoff range (i.e., support for Ho) for each of the aggregate variables. Only VAR333, 'equal aggregates', does not support Ho.

The response pattern over the five descriptive categories is quite free of major deviations. The Navy demonstrates some minor deviations from the general consensus.

With the same clear cut conviction with which the respondents reject the strategy of CFR and certain of its tenets, they accept the premise of equal aggregates. This could be an expression of the oft accused military inclination to support anything which will bring them new weapons and/or additional funds. The strong reversal of the respondents concerning VAR333 might then be viewed as the dominance of self serving interests over the national interest. Does the temptation to garner a bigger piece of the budget dollar impact a military person's judgment regardless of other factors? Attempting an answer to this question far exceeds the bounds of this paper.

Another facet of the data results is the rather decisive stance evidenced by the respondents. Very few of the primary variables and none of the aggregate variables evidence ambivalence. The responses are strongly grouped. This grouping is supported across the respondent descriptives.

D. CONCLUSIONS

The clear conclusion to be drawn from this survey is that the United States Military does not support the nuclear deterrence strategy of Controlled Flexible Response. This survey is, to the best of the author's knowledge, the first attempt to answer this question. Given that the sample size is not large, some critics may claim that the conclusions are superficial and not well grounded. In any case, the statistical results cannot be intuitively denied. The conclusions must be accepted until proven false.

A substantive contribution of this effort is the establishment of a methodology to quantitatively measure the values and perceptions of the military community concerning sensitive issues on which the military's positions carries significant importance. The preservation of anonymity is of the utmost importance in obtaining results free from contamination. Accepted statistical procedures applied to carefully collected data avoids the normative tendencies which appear in some studies. The methodology employed in this study could provide answers to questions which could or should be important considerations in the formulating of policies which rely on the military for their successful implementation.

Vis-a-vis other civilian-military differences on military strategy, most recently Viet Nam, the question inevitably arises as to whether CFR is the 'best' or 'proper' strategy. What are the nuances of a difference of opinion between civilian and military leadership of the United States on fundamental questions of nuclear deterrence strategy? Also to be asked is how does the shift from MAD to CFR appear to the Soviets?

What of the 'national debate' Secretary Schlesinger hoped to spark on the question of deterrence strategies? Did the debate die under the weight of Watergate, inflation or recession? Or perhaps this was but a gesture intended to convey some signal to the Soviets. Senator Proxmire clearly

warned that the words of Secretary Schlesinger should be read from that vantage. To quote Senator Proxmire, "We must be aware that many statements are meant for Soviet ears and as stage setters for the SALT II negotiations. There is more psychology here than meets the eye." (58:21)

The challenge to debate stirred no outburst of criticism or support from the U.S. military community. The author knows of no compelling reason for this apparent apathy other than the traditional reserve of the military to refrain from criticism of its civilian leaders. Does this restraint extend to supportive statements also?

Peter Ognibene, writing in The New Republic on 24 February, 1974 lucidly links this 'national debate' to the game of advertising bargain chips for use in negotiations with the Soviets. The possibility that the shift to a CFR strategy might have been more of a signal than a reality does not denegrate the importance of this study nor diminish the importance of verifying these conclusions.

The Soviet view of the announced shift in U.S. strategy must be considered. There is an old and continuing struggle within the Kremlin between conservatives (Hawks) and pragmatists (Doves). The pragmatists' argument is clearly represented by the following quote:

> .... there is no more dangerous illusion than the idea that thermonuclear war can still serve as an instrument of politics; that it is possible to achieve political aims through the use of nuclear power, and at the same time survive; and that it is possible to find acceptable forms of nuclear war. (30:46)

This is a direct rejection of any notion of limited nuclear war being an element of Soviet foreign policy. The present Soviet regime is acknowledged to be dominated by pragmatists. Most recently (after President Ford's Vladavistok meetings) the official journal KOMMUNIST editorialized on the results of even low level conflict between the U.S. and the USSR. It said, concerning the effects of a military conflict between the USSR and the United States, ".... a conflict which would be equivalent to the launching of a world nuclear missile war." (55)

The conservatives assert, ".... that a nuclear war does not necessarily pose 'a threat to physical survival of nations and states' and that it is very important to impress upon the Soviet people 'the possibilities of conducting a victorious nuclear missile war'. (30:46)

One might also postulate that this strategy shift by the U.S. is an exercise in linkage politics. It might be an effort by the U.S. Department of Defense to communicate some message to the Soviet Ministry of Defense concerning the limits of certain strategic capabilities.

If none of these possibilities applies, how then must the Soviet pragmatists who hold power in the Kremlin now view a U.S. move which many recognize to be a move towards a nuclear war fighting capability? (59) Particularly in light of their denial of any form of nuclear war as a viable policy tool and their view that a U.S. - USSR military conflict will result in launching a 'world nuclear missile war'.

Victor Zorza wrote in the Washington Post concerning the internal debate within the Kremlin on the 'fundamental' struggle between the pragmatist, General Secretary Brezhnev, and the Hawk, Defense Minister Grechko. He said, "The Kremlin's policy, and with it the future of detente, will be determined by the way this 'fundamental' disagreement is resolved, in Moscow, and how the two capitals (US/USSR) interact." (62)

These are momentous questions of great importance to national and world survival. The effects of our actions and the statements of respected government officials on questions of deterrence strategy must be evaluated for their impact on the U.S. citizen and the government of the Soviet Union.

The results of this survey and the discussions included in this report open numerous questions worthy of further investigation. Already mentioned are possible investigations which might be conducted into the comparative merits of MAD and CFR in today's weapons environment, taking into account of what is known of Soviet strategy. Also the question of the implications of a divergence between military and civilian leadership on the question of deterrence strategies has been mentioned. A further area for scholarly endeavor would be the whole subject of gestures, their intent and their results.

The significant import of this paper is the establishment of a major difference of philosophy on nuclear deterrence strategy between our country's civilian leadership, personified

by Secretary of Defense Schlesinger, and a defined sampling of middle to upper middle level career military officers. The impact of this strategy shift and its significance in various areas will be left to other learned researchers. On a national level, serious thought must be given to both sides of the disagreement. National resolve in a nuclear crisis can only be weakened if the strategies to be followed are only 'accepted' and not fully and faithfully agreed upon by decision makers and operators, both civilian and military.

APPENDIX A

DETERRENCE FORCES OF THE U.S. AND THE USSR

The calculus of deterrence force has reached such a high state today that no one can agree on the units of measure or how to total these units for comparative purposes.

There are three primary measures of nuclear deterrence force:

1. The number of launch vehicles
2. The number of reentry vehicles
3. The total deliverable megatonnage

It is argued that other factors have a significant influence on the calculus of deterrence force; however, for the most part these are not discussed in open literature due to security classifications. These technological factors include total lift capability, accuracy, system reliability, penetration aids, certain warhead technology, and MIRV and MARV (MIRV-Multiple Independently Targetable Reentry Vehicles; MARV - MAneuverable Reentry Vehicle).

All figures presented here are taken either directly from sources 8, 33, or 53 or they result from calculations made by the author using figures from one or more of these sources. The figures are accurate through 1974.

US/USSR Strategic Forces

US ICBM	Number of Launch Vehicles	Number of Warheads	Deliverable Megatonnage
Titan II	54	54	270
Minuteman II	500	500	1,000
Minuteman III	500	1,500	300
	1,054	2,054	1,570
USSR ICBM			
SS-7/SS-8	209	209	1,045
SS-9	313	939	4,695
SS-11/SS-13	1,096	1,096	1,096
	1,617	2,244	6,836
US SLBM			
Polaris A-3	160	480	96
Poseidon C-3	496	4,960	248
	656	5,440	344
USSR SLBM			
Yankee	480	480	480
Delta	120	360	360
	600	840	840
US BOMBERS			
B-52 (C-F)	262	1,048	1,048
B-52 (G-H)	255	3,060	1,530
FB-111	71	426	213
	588	1,734	2,791
USSR BOMBERS			
Bear, Bison, etc.	145	435	435

Thus, the total figures for the three most publicized measures of nuclear strike force are:

	US	USSR
Launch Vehicles	2,298	2,362
Warheads	9,228	3,519
Megatonnage	4,705	8,111

The US ICBM force is fixed at 1,054 launchers. The 54 Tital II launchers will likely be phased out in favor of SLBMs. The Minuteman mix of 500 MM II's and 500 MM III's could be changed in favor of more MM III's increasing the number of warheads (MM III are MIRV, 3 warheads) but reducing the deliverable megatonnage (MM II - 1 meg, MM III - 200 KT). There are no plans to build additional US ICBMs.

The US is improving its SLBM force both quantitatively and qualitatively. The 31 Poseidon submarines will be back-filled with the Trident missile (C-4) providing extended range (4,500 NM) and improved accuracy. The force is planned to be augmented by a minimum of 10 Trident submarines carrying 24 missiles (C-4) each. The Trident will eventually be fitted with the D-5 missile with a range in excess of 6,000 NM. Thus in the SLBM area the US is in the process of increasing the number of launch vehicles, warheads, and deliverable megatonnage as well as improving other qualitative items.

The US bomber picture is less clear. Almost yearly the US Air Force attempts to get funding for a new bomber to

replace the B-52. To date they have been unsuccessful. Therefore, for the foreseeable future (at least till tomorrow) no significant shift of the US bomber posture is envisioned.

In summary, by the early 1980s the US will likely alter its strategic forces as follows:

	No. of launch vehicles	No. of warheads	Megatonnage
ICBMs - convert all 1000 to MM III	1,000	3,000	600
SLBMs - 31 Poseidon (C-4), 10 Polaris (A-3), 10 Trident (C-4)	896	7,840	464
BOMBERS - 255 B-52 (G-H), 71 FB111	326	3,284	657
	2,222	14,124	1,721

To project the Soviet force structure is risky at best. However, the author feels the most likely Soviet force changes will be:

1) Qualitative improvement of ICBMs including MIRV, increased accuracy, and reliability.
2) Deployment of at least 63 modern SLBMs of the Yankee and Delta classes with longer ranges and MIRV capabilities.

Based on these projected changes the scorecard for the Soviets in the early 80s could read:

	No. of launchers	No. of warheads	Megatonnage
ICBMs	2,000	3,200	4,000
SLBMs	684	5,472	2,740
BOMBERS	145	435	435
	2,829	9,107	7,175

No attempt will be made to interpret the meaning of these indicators. The point here is to provide the reader with some basis for evaluating other literature which may use one or more of these indicators as a measure of strategic power. It is hoped that some appreciation of the vagaries of such an exercise are apparent and the reader will have some appreciation for the current and projected comparisons of these indicators.

APPENDIX B

A SURVEY OF VALUES AND PERCEPTIONS CONCERNING NUCLEAR DETERRENCE STRATEGIES

BACKGROUND

You are invited to participate in a research investigation the object of which is to profile the values and perceptions concerning nuclear deterrence strategies. The population to be surveyed is a select group of military persons many of whom will be commanding our operational forces in the near future.

Similar surveys have been conducted by academics, however the population surveyed has been limited to other academics or politicians. This survey is an attempt to get the military's viewpoint on a subject currently in a state of flux while the subject is still in the conceptual phase.

In answering the questions please do so within the framework of the given capabilities and strike definitions.

STRATEGIC CAPABILITIES

All questions assume that nations A and B possess the following capabilities:

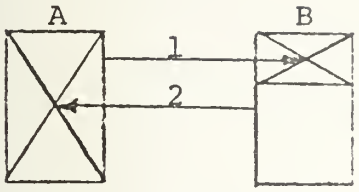
1. First a strike capability to completely destroy the social and industrial fabric of the other nation including greater than 50% fatalities.
2. First strike capability against opposing land based strategic forces capable of destroying a minimum of 70% of the opposition's land based delivery capability.
3. Second strike capability (primarily SLBMs) to destroy greater than 50% of the oppositions industrial capacity and inflict 50% casualties.

NUCLEAR STRIKE DEFINITIONS

1. Full First Strike-All out strike against military, industrial, and population centers. Minimal restrike capability remains. Second strike forces still remain.
2. Limited First Strike-Strike at primarily land based strategic forces. Major portion of first strike and full second strike capabilities remain.
3. Controlled Response-Selected targeting in which targets are attacked in a graduated sequence. Targets include any remaining land based strategic assets, other military, industrial, transportation, and communications targets. Population centers are not primary targets.
4. Massive Retaliation-Full utilization of any available land based strike forces as well as the bulk of the second strike assets against military, industrial, and population targets.

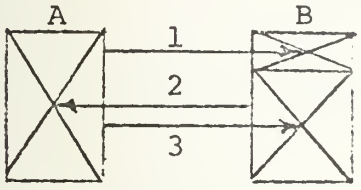
NUCLEAR EXCHANGE SCENARIOS

SCENARIO I



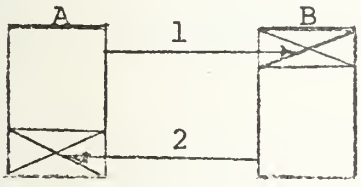
1. Limited strike by A.
2. Massive retaliation by B.

SCENARIO II



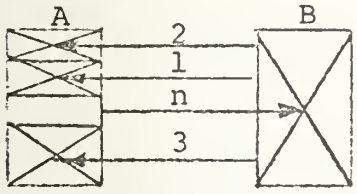
1. Limited strike by A.
2. Massive retaliation by B.
3. Massive second strike by A.

SCENARIO III



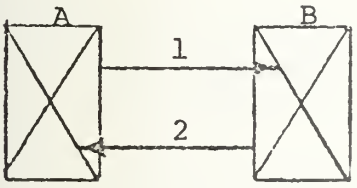
1. Limited strike by A.
2. Controlled response by B.

SCENARIO IV



1. Massive first strike by A.
2. through n. Controlled response by B.

SCENARIO V



1. Massive first strike by A.
2. Massive second strike by B.

SOURCE IDENTIFICATION

1. RANK _____ (0-6, GS17 etc)

2. SERVICE _____ (or government dept)

3. WARFARE SPECIALTY _____ (infantry, subs, sac, etc)

4. PRESENT DUTY STATION _____

5. AGE _____

STRATEGIC VALUES AND PERCEPTIONS

6. B's reaction to A's limited strike in Scenario I is likely to deter such a strike by A.
YES( ) NO( )

7. Scenario I almost certainly leads to Scenario II.
YES( ) NO( )

8. The exchange depicted in Scenario II will deter A from initiating such an exchange.
YES( ) NO( )

9. Scenario V is the most probable format for any future exchange as long as A and B are of comparable strength.
YES( ) NO( )

10. B's best strategy to deter a limited first strike by A is Scenario I or Scenario III.
I ( ) III( )

11. The deployment of a 100% effective counterforce capability against land based strategic forces by A or B would significantly alter the strategic balance.
YES( ) NO( )

12. The espousal by B of the strategy depicted in Scenario III:
a. increases indernational stability
b. decreases international stability
a. ( ) b.( )

13. The aftermath of Scenario V assures its non-occurance
YES( ) NO( )

14. The deployment of an apparently effective counterforce capability by either party forces a like deployment by the other.
YES( ) NO( )

15. Assuming that B possess no other reaction capability than that depicted in Scenario I and B knew for certain that the result of his reaction in Scenario I will be Scenario II his rational options to a limited strike by A include no response.

YES( ) NO( )

16. The assumed position of B in the preceeding question reduces A's perception of the nuclear threshold.

YES( ) NO( )

17. Scenario III will probably result in continued probes and responses by both sides.

YES( ) NO( )

18. The response of B in Scenario V is a stronger deterrent to a massive attack by A than B's response in Scenario IV.

YES( ) NO( )

19. B's best strategy to deter a limited strike by A is:
a. Response in kind.
b. Response at some multiple of A's strike.
c. All out attack upon A.

a.( ) b.( ) c.( )

20. First strike calculations become feasible when the capability exists to limit one's fatalities to less than _____%.

21. A credible deterrent should ensure enemy fatalities of at least _____%.

22. The best strategy to deter a limited first strike against one's strategic forces is:
a. Instant Massive Retaliation.
b. Selected controlled response.

a. ( ) b.( )

23. The possession of sufficient survivable second strike forces neutralizes the effect of an enemies deployment of an effective anti-land based ICBM counter force capability and argues against the necessity to deploy a like capability.

YES( ) NO( )

24. If the limited strike by A in Scenario II were not responded to more limited strikes would follow.

YES( ) NO( )

25. A shift in deterrence strategy from massive retaliation to controlled response increases the likelihood of a nuclear exchange.

YES( ) NO( )

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